

REMARKS

Applicant respectfully requests reconsideration of the above-identified application. Claims 1, 6, 7, 8, and 15 have been amended, Claims 12-14 and 16-20 have been canceled, and new Claims 21-24 have been added. Thus, Claims 1-11, 15, and 21-24 are pending in the present application. Applicant acknowledges with appreciation the indication that Claims 7-11 contain allowable subject matter.

In the February 28, 2003 Office Action (hereinafter "Office Action"), a restriction requirement under 35 U.S.C. § 121 has been made. Claims 1 and 5 were rejected in the Office Action under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,382,208 to Hu (hereinafter "Hu"). Claim 6 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,852,872 to Lo (hereinafter "Lo"). Claims 2, 3, and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hu in view of U.S. Patent No. 5,656,001 to Baatz (hereinafter "Baatz"). Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hu in view of U.S. Patent No. 5,480,366 to Harnden et al. (hereinafter "Harnden"). Additionally, disclosure stands objected to because of a minor informality. Applicant respectfully asserts that the present application is in condition for allowance. The reasons why applicant believes the present application is in condition for allowance are discussed in detail below.

Restriction Requirement

A restriction requirement was set forth in the Office Action under 35 U.S.C. § 121, asserting that the application contained claims directed to two distinct inventions, which are: Invention I, Claims 1-11, drawn to an exercise device; and Invention III, Claims 12-14, drawn to a chain tensioning device. Accordingly, a requirement under 35 U.S.C. § 121 to elect a single invention for prosecution was set forth in the Office Action. In response to the restriction

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requirement, applicant elects Invention I, Claims 1-11, drawn to an exercise device, for prosecution on the merits, without traverse. Applicant further requests joinder of Claim 15, which was characterized as drawn to an exercise device in a restriction requirement mailed November 19, 2002, and examined on the merits in the Office Action.

#### Amendment to the Specification

The disclosure stands objected to in the Office Action because of a minor informality. Specifically, page 7, line 31, reference numeral "123" should be "122". Accordingly, applicant has amended the specification as suggested by the Examiner. Thus, applicant respectfully requests withdrawal of the objection to the specification.

#### Claim Rejections Under 35 U.S.C. § 102

Claims 1 and 5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hu. Claim 6 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Lo. Applicant respectfully traverses the rejection of these claims. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d. 1051, 1053 (Fed. Cir. 1987). For at least the following reasons, applicant respectfully asserts that the claimed combination of features recited in Claims 1 and 5, or 6 are not taught or suggested by the cited prior art, namely, Hu or Lo, respectively.

#### Independent Claim 1

Amended Claim 1 is directed to an exercise training apparatus. The apparatus includes a support frame having a front support member and a rear mounting assembly, a bicycle frame having a rotatable front fork and a rear fork being detachably coupled to the respective front support member and rear mounting assembly of the support frame, a flywheel rotatably coupled to the rear mounting assembly of the support frame, a magnetic field generation source coupled

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to the rear mounting assembly of the support frame, and "a transmission system including a driven member coupled to the flywheel and a user operable drive assembly, the drive assembly coupled to the bicycle frame and operably connected to the driven member through a flexible drive element, wherein the driven member and the flywheel are substantially coaxial."

In contrast with the present invention, Hu purportedly teaches a magnetic-resistance control device for an exercise bicycle. An exercise bicycle 10 having a front wheel and a rear wheel 11 is supported at the front and rear axles by two pairs of vertical extensions 21 of a base 20. A magnetic-resistance device is connected at the rear of the base 20. The device includes a platform 301 to which a flywheel axle 31 is rotatably mounted. The flywheel axle 31 is positioned so as to rotatably engage with the rear wheel 11. A flywheel 32 made of magnetism-conducting material is mounted to the flywheel axle 31 for rotating therewith. A permanent magnet 42 defining an opening is mounted in a position such that the flywheel 32 is partly enclosed. In operation, the flywheel 32 rotates with the flywheel axle 31 synchronously in an opposite direction of the rear wheel 11 and is partly enclosed in the opening of the u-shaped magnet 42, thereby generating a resistance on the flywheel, thus retarding the rotation of the rear wheel 11. See Figure 1 and column 2, lines 10-65.

However, applicant respectfully asserts that Hu fails to teach or suggest "a transmission system including a driven member coupled to the flywheel and a user operable drive assembly, the drive assembly coupled to the bicycle frame and operably connected to the driven member through a flexible drive element, wherein the driven member and the flywheel are substantially coaxial." Specifically, since the only transmission of the bicycle taught in Hu that includes a flexible drive element is the crank/pedal assembly connected to a driven member of the rear wheel by a chain, the flywheel and the driven member of the transmission taught in Hu are not substantially coaxial.

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Therefore, applicant respectfully asserts that Hu fails to teach the recited combination of features of amended Claim 1. Thus, applicant respectfully requests withdrawal of the pending rejection under 35 U.S.C. § 102(b) with regard to Claim 1. Accordingly, applicant respectfully requests withdrawal of the pending rejection under Section 102(b) of Claim 5, which depends from allowable Claim 1.

#### Independent Claim 6

Amended Claim 6 is directed to an exercise training apparatus. Claim 6 has been amended to recite that the support frame includes a rear mounting structure adapted to be connected to a bicycle frame. In contrast to amended Claim 6, Lo purportedly teaches a stationary exercise bicycle having pivoting arms. Please see FIGURES 1 and 2. However, applicant respectfully asserts that Lo fails to teach or suggest a support frame "including a rear mounting structure adapted to be connected to a bicycle frame." More specifically, applicant respectfully asserts that Lo fails to teach or suggest a support frame having the structure necessary for a conventional bicycle frame to be connected to the rear section of the support frame.

Therefore, applicant respectfully asserts that Lo fails to teach the recited combination of features of amended Claim 6. Thus, applicant respectfully requests withdrawal of the pending rejection under 35 U.S.C. § 102(b) with regard to Claim 6.

#### Claim Rejections Under 35 U.S.C. § 103(a)

Claims 2, 3, and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hu in view of Baatz. Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hu in view of Harnden. Applicant respectfully traverse the rejections of these claims.

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Claims 2, 3, and 4

Dependent Claims 2, 3, and 4 depend from Claim 1, and thus, contain all of the elements of Claim 1. Therefore, for the same reasons as discussed above with regard to Claim 1, Claims 2, 3, and 4 are allowable over the cited prior art. Accordingly, applicant respectfully requests withdrawal of the pending rejections under 35 U.S.C. § 103(a) of Claims 2, 3, and 4.

Dependent Claim 15

It is the Examiner's contention that Hu and Baatz teach each and every element of Claim 15 except for a flywheel including a plurality of radial segments that form a disk/ring. The Examiner further contends that one-piece construction, in place of separate elements fastened together, is a design consideration within the skill of the art. Accordingly, the Examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the flywheel of Baatz to include a plurality of radial segments that form the disk/ring.

Applicant agrees with the Examiner that Hu and Baatz fail to teach or disclose a flywheel including a plurality of radial segments that form the disk/ring. However, for at least the following reasons, applicant respectfully asserts that Claim 15 is in condition for allowance.

Amended Claim 15 is directed to an exercise apparatus. The apparatus includes a flywheel that comprises a circular body having an outer peripheral flange and a hub section. The circular body is rotatably connected to the rear mounting assembly, and a plurality of radial segments of a non-magnetic, conductive material are removably coupled to the outer peripheral flange defining gaps therebetween.

Applicant respectfully asserts that Hu fails to teach or suggest a flywheel having a plurality of segments made of a non-magnetic, conductive material removably coupled around the perimeter of a circular body defining gaps therebetween. Additionally, applicant respectfully

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asserts that Baatz fails to correct the deficiencies in Hu, namely, having a plurality of segments made of a non-magnetic, conductive material removably coupled around the perimeter of a circular body defining gaps therebetween.

Under § 103, a *prima facie* case of obviousness is established only if the cited references, alone or in combination, teach each of the limitations of the recited claims. *In re Bell*, 991 F.2d 781 (Fed. Cir. 1993). Since Hu and Baatz, either alone or in combination, fail to teach or suggest each and every recited element of amended Claim 15, applicant asserts that a *prima facie* case of obviousness has not been established. Therefore, applicant respectfully requests the pending rejection of Claim 15, under U.S.C. § 103(a) be withdrawn.

The Office Action states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the flywheel of Baatz to include a plurality of radial segments connected together instead of a single ring/disc. Applicant respectfully disagrees with this contention, and respectfully asserts that including a plurality of radial segments removably connected to a circular body and positioned to form gaps between the segments would not be obvious to one of ordinary skill in light of the prior art. In support of applicant's position, applicant submits the flywheel as defined in Claim 15 provides numerous advantages over the prior art, further supporting the nonobviousness of the recited combination. The specification on page 9, line 14, states as follows.

"The sections are made using a conventional die set by punching the desired shape from a sheet of desired material. By using several small sections instead of one continuous ring, it is more economical to make since more of the blank sheet of material can be used. Additionally, the size of the die set and punch press needed to make the sections is substantially smaller than what would be needed to make one continuous ring. This also lowers the cost of making the present invention. Further, a single section that may have warped or been damaged in some manner can be easily be replaced at minimal expense."

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Further, during the operation of the apparatus, heat is produced in the segments from the interaction between the magnetic field and the segments. The gaps defined between the segments act as expansion gaps to allow for the segments to expand without warping or otherwise deforming the segments, while also creating air turbulence as the flywheel rotates, which in turn, assists in cooling the flywheel to dissipate the heat. Accordingly, based on these advantages provided by the flywheel of Claim 15 not recognized nor appreciated by the prior art, applicant respectfully submits that the recited combination of features in Claim 15 are nonobvious, the thus, allowable over the prior art.

New Claims 21-24

The office action stated that Claims 7 and 10 would be allowable if they were rewritten in independent form. Accordingly, Claims 7 and 10 have been rewritten in independent form as new Claims 21 and 22, respectively. Applicants assert that new Claims 21 and 22 have been modified and thus, are substantially identical to Claims 7 and 10, respectfully. Further, new Claims 23 and 24 have been added to further point out and distinctly claim the novel aspects of the present invention. Applicant asserts the prior art fails to teach or suggest the combination of features recited in new Claims 21-24. Accordingly, applicant respectfully asserts the new Claims 21-24 are in condition for allowance.

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CONCLUSION

In light of the foregoing amendments and remarks, applicant asserts that the claims of the present application recite a combination of features not suggested by the prior art. Therefore, applicant respectfully requests early and favorable action, and the allowance of all pending claims. If any further questions remain, the Examiner is invited to telephone applicant's attorney at the number listed below.

Respectfully submitted,

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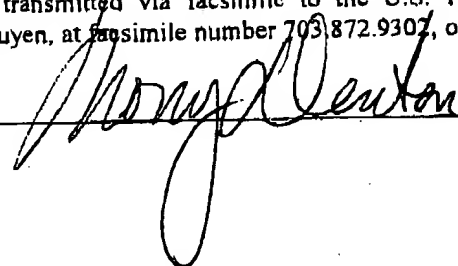


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I hereby certify that this correspondence is being transmitted via facsimile to the U.S. Patent and Trademark Office, Group Art Unit 3764, Examiner Tam M. Nguyen, at facsimile number 703.872.9307, on May 28, 2003.

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